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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,974	11/20/2003	Joel Keith Parkinson	56334.00011	3566

7590 08/25/2004  
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EXAMINER
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SCOTT, JAMES R

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,974	<b>Applicant(s)</b> PARKINSON ET AL.	
	<b>Examiner</b> James R Scott	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 20 November 2003 and 12 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-38 is/are allowed.
- 6) ☐ Claim(s) 1-10 and 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

**The drawings have been approved as being acceptable by the Draftsman. Note the enclosed form PTO-948.**

The **drawings are objected to by the Examiner** because applicant fails to refer to the section lines B—B and C—C in the brief description of the drawings. Eliminate the section lines referred to above, in the drawings or provide proper reference to the section lines in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 2832

### Specification

Amend the Brief description of the Drawings if the section lines B—B and C—C are retained. Any other errors applicants may become aware of should be corrected.

### ***Claim Objections***

Claim 29 is objected to because of the following informalities: In line 8 the word contracts should read as contacts. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite since the claim is dependent upon itself.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under

Art Unit: 2832

the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Barker, Lima et al, Schmidt et al, Joss et al and Hutchinson et al.

In Hutchinson note the bezel like element at 5, and the keypad mat at 1 including lower portion 8 having a smaller diameter than the larger diameter of the upper portion of the key at 7,4 in Fig. 1.

In Joss et al note the bezel like element at 120,122, and the keypad mat at 114,118 including lower portion 116 having a smaller diameter than the larger diameter of the upper portion of the key at 112.

In Schmidt et al note the bezel like element at 24, and the keypad mat at 22 including lower portion 41 having a smaller diameter than the larger diameter of the upper portion of the key at 12 in fig.1 or 20,40 in fig.2.

In Lima et al note the bezel like element at 13, and the keypad mat at 14 including lower portion 32 having a smaller diameter than the larger diameter of the upper portion of the key at 22.

In Barker note the bezel like element at 26, and the keypad mat at 32, including lower portion 38,40 having a smaller diameter than the larger diameter of the upper portion of the key at 280.

Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt et al. Note the keypad lower element 41 which has a conductive segment attached to the undersurface of element 41 and engages the two spaced contacts 32 mounted on the substrate 32.

Claims 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmidt et al. Note lightpipe 28 which transmit light from a light source to a key nodule 43. Note col. 3, lines 19 –65. The light source could be located to the side of or below the printed circuit board.

Claim 39 is rejected under 35 U.S.C. 102(b) as being anticipated by Bassi who teaches that a household appliance may be a dishwasher noting the abstract and the publication date of the prior publication.

***Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al noting the remarks with respect to claim 6 and considered with Collar et al. Schmidt et al disclose all the structure except the teaching that the conductive traces may be made of carbon material. Collar et al teach in their Summary of the Invention noting col. 1, lines 44,45 that it is well known in the prior art to use carbon ink as a conductive layer on circuit boards in keyboard switch arrangements. Therefore it would have been obvious to one skilled in the art at the time the invention was made to use carbon ink as suggested by Collar et al as the specific conductive trace material for the Schmidt et al conductive traces 32 in order to provide a reliable and economical fixed contact pattern.

### Statement of Allowability

Claims 11-17 and 18-28 and 29-38 are allowable since the prior art does not teach the use of a top section of a key of a keymat having a larger perimeter than the perimeter of the base and a bezel mounted between the top and base portions with the top portion of the key lying in overlapping relation to a top surface of the bezel with the keys being inserted through the bezel openings for mounting purposes. The closest prior art is Lima et al who discloses the use of a keyboard interface section 13 mounted between top portions and the base of a keyboard pad assembly 14 noting figures 1 and 4 and the undercut region which retains the keyboard interface section 13 in fixed relation to the keyboard pad assembly 14.

### Cited References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the Hutchinson keymat at 107, the Levy keymat at 84,45,98,80,etc. and the Bebie mat portions 1,2; 1a, 2a, 11,12 and the light arrangements in figs. 4 and 5 noting the location of the lights with respect to the electrodes and contact patterns.

### Summary

Claims 1-10 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R Scott whose telephone number is

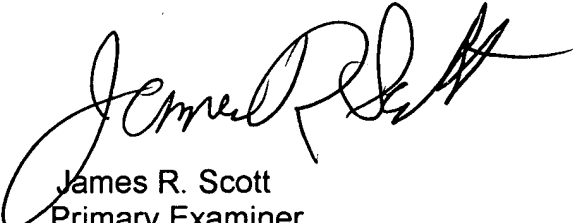
Art Unit: 2832

571-272-1999. The examiner can normally be reached on any workday between 1-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRScott: jrs  
8-16-2004



James R. Scott  
Primary Examiner  
GAU 2832